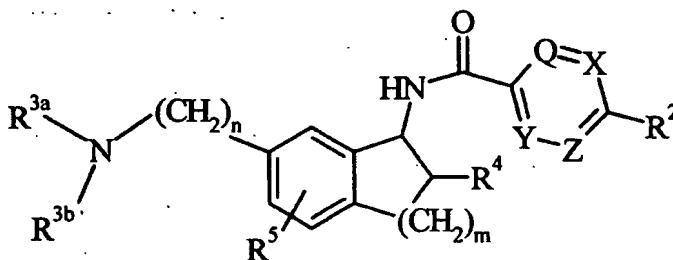


Amendments to the Claims

1. through 15. (Cancelled)

16. (New) A compound of the formula



I

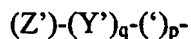
wherein

Q, X, Y, and Z are independently selected from the group consisting of CR¹ and N, provided that no more than two of Q, X, Y, and Z are N and at least two of Q, X, Y, and Z are CH; or Y is CH, Z is CH, and the moiety "Q=X" represents "S" to form a thiophene ring;

R¹ is independently at each occurrence selected from the group consisting of hydrogen, halogen, C₁-C₄ alkoxy, and C₁-C₄ alkyl;

R² is selected from the group consisting of halogen; C₁-C₄ alkoxy; C₁-C₄ alkyl; C₃-C₈ cycloalkyl; cyano; trifluoromethyl; pyridinyl optionally substituted with one to two substituents independently selected from the group consisting of halogen, C₁-C₄ alkoxy, and C₁-C₄ alkyl; thienyl optionally substituted with one substituent selected from the group consisting of halogen, C₁-C₄ alkoxy, and C₁-C₄ alkyl; phenyl optionally substituted with from one to three substituents independently selected from the group consisting of halogen, C₁-C₄ alkoxy, C₁-C₄ alkyl, trifluoromethyl, and cyano; and pyrrolyl optionally substituted with one to two substituents independently selected from the group consisting of halogen, C₁-C₄ alkoxy, and C₁-C₄ alkyl;

R^{3a} is a radical of the formula



wherein:

X' is selected from the group consisting of C_1 - C_4 alkandiyl and



Y' is selected from the group consisting of O and S; and

Z' is selected from the group consisting of C_1 - C_4 alkyl; C_3 - C_8 cycloalkyl optionally substituted with one to three substituents independently selected from the group consisting of halogen, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, trifluoromethyl, cyano, and nitro; phenyl optionally substituted with one to three substituents independently selected from the group consisting of halogen, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, trifluoromethyl, cyano, and nitro; heteroaryl optionally substituted with one or two substituents independently selected from the group consisting of halogen, C_1 - C_4 alkoxy, and C_1 - C_4 alkyl; and heterocycle optionally substituted with one or two substituents independently selected from the group consisting of halogen, C_1 - C_4 alkoxy, and C_1 - C_4 alkyl;

p is zero or one;

q is zero or one;

provided that when p is zero, q is zero;

R^{3b} is selected from the group consisting of hydrogen, C_1 - C_4 alkyl, and benzyl;

or R^{3a} and R^{3b} are taken together with the nitrogen with which they are attached to form a heterocycle optionally substituted with one or two substituents independently selected from the group consisting of halogen, C_1 - C_4 alkoxy, and C_1 - C_4 alkyl;

R^4 is selected from the group consisting of hydrogen, hydroxy, and fluoro;

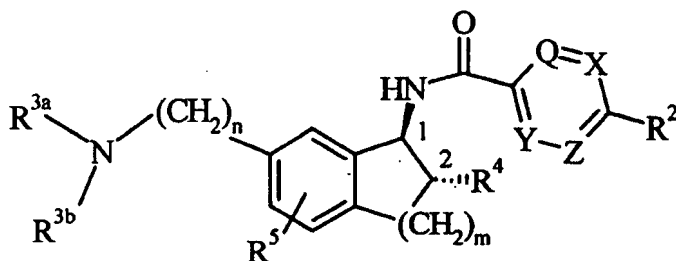
R^5 is selected from the group consisting of hydrogen, halogen, C_1 - C_4 alkoxy, and C_1 - C_4 alkyl;

m is one or two;

n is one or two;

or pharmaceutically acceptable addition salts thereof.

2 17. (New) The compound of Claim 16 wherein R^5 is hydrogen, R^4 is hydroxy, m is one, and which has the trans stereochemistry at the 1- and 2-position shown below:



- 3
18. (New) A compound according to Claim ~~16~~ wherein Q, X, Y, and Z are each CH.
- 4
19. (New) A compound according to Claim ~~17~~ wherein Q, X, Y, and Z are each CH.
- 5
20. (New) A compound according to Claim ~~16~~ wherein one of Q, X, Y, and Z is CF and the others are CH.
- 6
21. (New) A compound according to Claim ~~17~~ wherein one of Q, X, Y, and Z is CF and the others are CH.
- 7
22. (New) A compound according to Claim ~~16~~ wherein Q is CF, and X, Y, and Z are each CH.
- 8
23. (New) A compound according to Claim ~~17~~ wherein Q is CF, and X, Y, and Z are each CH.
- 9
24. (New) A compound according to Claim ~~16~~ wherein R² is phenyl optionally substituted with from one to three substituents independently selected from the group consisting of halogen, C₁-C₄ alkoxy, C₁-C₄ alkyl, trifluoromethyl, and cyano.
- 10
25. (New) A compound according to Claim ~~17~~ wherein R² is phenyl optionally substituted with from one to three substituents independently selected from the group consisting of halogen, C₁-C₄ alkoxy, C₁-C₄ alkyl, trifluoromethyl, and cyano.
- 11
26. (New) A compound according to Claim ~~16~~ wherein R² is phenyl.

²
12 27. (New) A compound according to Claim 17 wherein R² is phenyl.

13 28. (New) A compound according to Claim 26 wherein n is one.

14 29. (New) A compound according to Claim 27 wherein n is one.

15 30. (New) A pharmaceutical composition comprising a compound of Claim 16 and a pharmaceutically acceptable diluent.

31. (New) A method of treating disorders associated with the muscarinic receptors, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.

32. (New) A method of treating cognitive disorders, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.

33. (New) A method of treating Alzheimer's disease, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.

34. (New) A method of treating schizophrenia, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.

35. (New) A method of treating mild cognitive impairment, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.

36. (New) A method of treating cognitive impairment associated with schizophrenia, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.